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Pygobunus okadai n. sp. (Arachnida, Opiliones, Phalangiidae),
the First Member of the Subfamily Sclerosomatinae
from Japan

With 1 Text-figure

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ABSTRACT The second species of the genus *Pygobunus* is described as new under the name of *P. okadai* from Is. Amami-ôshima of the Ryukyus, Japan. This species is closely related to *P. formosanus* ROEWER known from Formosa, which is the type-species of the genus, but is clearly distinguished from it by having a long median protuberance on the eye tubercle and lacking any conical humps on the free tergites. This is the first member of the subfamily Sclerosomatinae to be reported from Japan.

This paper deals with the description of a new species of the genus *Pygobunus* belonging to the subfamily Sclerosomatinae, Phalangiidae from Is. Amami-ôshima, the Ryukyus, southwestern Japan. This genus was originally described by ROEWER in 1957 based on one male specimen from Formosa, and since then, there has been no collecting record of this unique genus or species. Therefore, occurrence of the second species of the genus in Is. Amami-ôshima which is located at about 800 km northeast of Is. Formosa, is of much interest. This is the first record of the species belonging to the subfamily Sclerosomatinae from Japan.

Family Phalangiidae
Subfamily Sclerosomatinae

Genus *Pygobunus* ROEWER

Pygobunus ROEWER, 1957, *Senckenbergiana biol.*, 38: 337–338, type-species: *Pygobunus formosanus* ROEWER, 1957; MARTENS, 1973, *Senckenbergiana biol.*, 54: 211; SUZUKI, 1977, *J. Sci. Hiroshima Univ.*, (B-1), 27: 153.

This genus was created by ROEWER (1957) for *Pygobunus formosanus* from Formosa. The genus is redefined as follows so as to include the present new species.

Diagnosis. *Pygobunus* differs from all the other described members of Sclerosomatinae by: 1) presence of a long median conical protuberance on the front margin of carapace, 2) well-developed marginal row of small humps on each coxa anteriorly and/or posteriorly, 3) absence of spines or conical humps on the dorsal scutum, and 4) femora II as long as or longer than body length.

Description. Medium-sized phalangids with somewhat hard, finely granulated bodies. Anterior margin of carapace medially with an elongated conical spine. Eye tubercle located distantly from anterior margin of carapace, not canaliculate above. Abdomen unarmed dorsally except for second free tergite of *P. formosanus*; lacking lateral sclerites of corona analis (cf. MARTENS, 1973). Coxae of legs with a distinct marginal row of small humps anteriorly and/or posteriorly. Chelicera normal, with a tooth on ventral surface of proximal segment. Palpus relatively short but robust, without apophysis; tarsal claw pectinate. Legs relatively long for a member of Sclerosomatinae, femur II equal to or longer than body length; trochanters I–IV armed with a spine (or a rudiment of a spine) at their anterior and/or posterior edges.

Subordinate taxa. Only two species, *P. formosanus* ROEWER and *P. okadai* n. sp.

Distribution. Formosa (Funkikuo) and Japan (Is. Amami-ôshima).

Pygobunus okadai n. sp.

(Fig. 1)

Material. Holotype (♀), Mt. Yuwan (under logs and debris of lumber), Is. Amami-ôshima, the Ryukyus, Japan, 25~29-VI-1981, Hiroyuki OKADA leg. The type-specimen is deposited in the Zoological Museum, Faculty of Science, Hokkaido University.

Measurements. ♀, holotype: Cephalothorax 1.8 mm long, 2.2 mm wide; abdomen 2.2 mm wide; total body length 5.3 mm.

Length of palpus and legs, in mm:

	Fe	Ti	Pa	Mt	Ta	Total
Palpus	0.57	0.36	0.39	—	0.79	2.11
Leg I	1.9	0.7	1.5	2.8	1.8	8.7
II	5.7	1.0	5.3	5.7	6.1	23.8
III	2.1	1.4	1.5	3.0	1.8	9.8
IV	4.0	1.0	2.5	5.1	2.1	14.7

Female. Body as in Fig. 1 A–B, dorsum and venter relatively hard and granulose. Anterior margin of carapace with a long median conical spine. Eye tubercle nearly as long as wide, situated at two-thirds of cephalothorax length from anterior margin, armed dorsally with a long median protuberance (Fig. 1C). Thoracic tergites, dorsal scutum, and free tergites without any spines or humps. Coxae smooth.

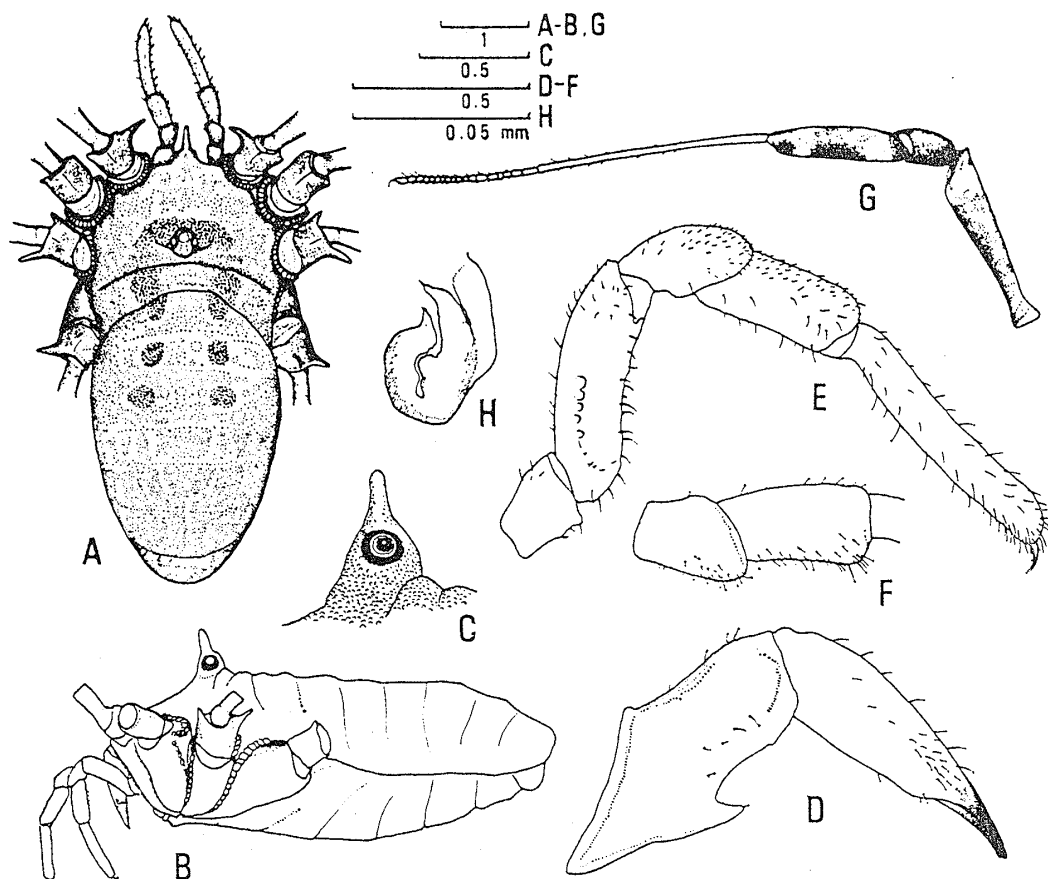


Fig. 1. *Pygobunus okadai* n. sp., female, holotype. — A, Dorsal and B, lateral views of body; C, lateral view of eye tubercle; D, mesal view of chelicera; E, mesal view of palpus; F, dorsal view of patella and tibia of left palpus; G, lateral view of leg I; H, seminal receptacle.

A prominent marginal row of humps on both anterior and posterior sides of coxae I, II, IV and on the anterior side of coxa III. Coxae I–III also bordered roundly with a row of closely linked humps at the opposite side of the carapace (Fig. 1A). Free sternites with no lateral sclerites, and lateral sclerites of tergite IX absent (therefore not forming corona analis).

Chelicera normal, as in Fig. 1 D, both segments with only sparse short hairs.

Palpus relatively short but robust (Fig. 1E–F). Femur with a longitudinal row of humps on the basal half of the medial surface. Patella swollen distally, tibia considerably widened, both segments without distinct apophysis and dorsally with numerous short spines. Tarsus with scattered hairs only. Tarsal claw with about five teeth below.

Legs relatively long compared with other members of Sclerosomatinae. Trochanters distally with a long spine or a rudiment of projection anteriorly and posteriorly on the first and third, only posteriorly on the second, and only anteriorly on the

fourth. Femora robust, widened distally, patellae and tibiae also robust, remaining leg-segments slender.

Coloration. Ground color of dorsum dark brown, mottled with yellowish to whitish brown on carapace and abdomen entirely. Eye tubercle anteriorly and basally dark brown, dorsally and around the black eye rings golden-yellow; median spine yellowish brown. Carapace with a blackish brown blotch in front of the eye tubercle; second thoracic tergite and I-III tergites of scutum, each with a pair of blackish brown spots. Venter pale yellowish brown; distal half of each coxa dark brown. Chelicera yellowish brown; palpus brown, ventral side of tibia and tarsus slightly lighter. Upper side of coxa and trochanter of leg IV dark brown, trochanters of remaining legs pale yellowish brown. Other leg-segments dark brown with golden to whitish yellow splotches, tibiae with a broad whitish-yellow distal ring.

Ovipositor consisting of three forceps segments and 19 normal segments, of which distal eleven bear a whirl of eight spines; seminal receptacles (Fig. 1 H) located within the third normal segment.

Male. Unknown.

Distribution. Known only from the type-locality.

Remarks. This species differs from *Pygobunus formosanus* by having a long median projection on the eye tubercle and lacking a median conical projection on second free tergite.

The specific epithet is given in honor of Mr. Hiroyuki OKADA who collected the present material.

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